

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the above-referenced application.

Listing of Claims:

1. **(Currently amended)** A protein ~~of the following~~ as defined in (a) or (b):
 - (a) a protein comprising ~~an~~ the amino acid sequence of SEQ ID NO: 2; and
 - (b) a protein comprising ~~an~~ the amino acid sequence of SEQ ID NO: 2 with one or several amino acids deleted, replaced, or added, and having an activity of binding rabconnectin-3 and a GDP/GTP exchange protein.
2. **(Currently amended)** ~~A~~ The protein ~~according to~~ of claim 1, which has the amino acid sequence of SEQ ID NO: 2.
3. **(Currently amended)** A polynucleotide ~~for encoding~~ that encodes ~~the~~ a protein as defined in claim 1 ~~or~~ 2.
4. **(Currently amended)** ~~A~~ The polynucleotide ~~according to~~ of claim 3, comprising a nucleotide sequence of nucleotide numbers 1 to 4470 ~~of a~~ the nucleotide sequence of SEQ ID NO: 1.
5. **(Currently amended)** A polynucleotide ~~of the following~~ as defined in (a) or (b):
 - (a) a polynucleotide comprising ~~a nucleotide sequence of nucleotide numbers 1 to 4470 of a~~ the nucleotide sequence of SEQ ID NO: 1; and
 - (b) a polynucleotide which hybridizes with ~~the~~ a polynucleotide comprising a nucleotide sequence that is complementary to the ~~nucleotide sequence of nucleotide numbers 1 to 4470 of~~ the nucleotide sequence of SEQ ID NO: 1 under a stringent condition, and encodes a protein having an activity of binding rabconnectin-3 and a GDP/GTP exchange protein.

6. **(Currently amended)** A polynucleotide ~~of the following as defined in~~ (a) or (b):
- (a) a polynucleotide comprising ~~a nucleotide sequence of nucleotide numbers 1 to 4470~~ of a the nucleotide sequence of SEQ ID NO: 1; and
- (b) a polynucleotide comprising a nucleotide sequence whose homology to the nucleotide sequence ~~of nucleotide numbers 1 to 4470 of the nucleotide sequence~~ of SEQ ID NO: 1 is 80% or higher and encoding a protein having an activity of binding rabconnectin-3 and a GDP/GTP exchange protein.
7. **(Currently amended)** A recombinant vector comprising ~~the~~ a polynucleotide as defined in any one of ~~claim~~ claims 3 to 6.
8. **(Currently amended)** A transformant obtained by transforming a host with ~~the~~ a polynucleotide as defined in any one of ~~claim~~ claims 3 to 6.
9. **(Currently amended)** A method of producing a protein having an activity of binding rabconnectin-3 and a GDP/GTP exchange protein, comprising:
- culturing ~~the~~ a transformant as defined in claim 8 in a culture; and
- collecting, from ~~a~~ the culture, ~~the~~ a protein having ~~the~~ an activity of binding the rabconnectin-3 and the GDP/GTP exchange protein, ~~expressed by the transformant~~.
10. **(Canceled)**
11. **(Currently amended)** A method of analyzing ~~the~~ a first polynucleotide as defined in any one of claims 3 to 6, comprising hybridizing a probe or a primer with the first polynucleotide, wherein the probe or primer includes including a second polynucleotide having at least 15 nucleotides complementary to the first polynucleotide ~~as defined in any one of claim 3 to 6 with a subject polynucleotide~~.
12. **(Currently amended)** ~~An~~ The analyzing method ~~according to~~ of claim 11, wherein the ~~subject~~ first polynucleotide is present in a ~~subject~~ tissue or a ~~subject~~ cell.

13. **(Currently amended)** A method of analyzing a ~~gene~~ first polynucleotide encoding ~~the a~~ protein as defined in claim 1 or 2, comprising hybridizing a probe or a primer with the first polynucleotide, wherein the probe or primer includes ~~including~~ a second polynucleotide having at least 15 nucleotides complementary to the first polynucleotide ~~as defined in any one of claim 3 to 6 with a subject polynucleotide.~~
14. **(Currently amended)** ~~A~~ The analyzing method of ~~analyzing a gene according to claim 12~~ 13, wherein the ~~subject~~ first polynucleotide is present in a ~~subject~~ tissue or a ~~subject~~ cell.
15. **(Currently amended)** A method ~~of analyzing a gene~~, comprising ~~the steps of:~~
amplifying an mRNA in a ~~subject~~ tissue or a ~~subject~~ cell by an RT-PCR method with a primer that includes ~~including~~ a polynucleotide having at least 15 nucleotides complementary to ~~the a~~ polynucleotide as defined in any one of claims 3 to 6, ~~and~~
measuring the polynucleotide as defined in any one of claim 3 to 6.
16. **(Currently amended)** An antisense polynucleotide which hybridizes with an mRNA encoding ~~the a~~ protein as defined in claim 1 or 2.
17. **(Currently amended)** A ribozyme for cutting an mRNA encoding ~~the a~~ protein as defined in claim 1 or 2.
18. **(Currently amended)** A double-stranded RNA for cutting an mRNA encoding ~~the a~~ protein as defined in claim 1 or 2 by RNA interference.
19. **(Currently amended)** An antibody against ~~the a~~ protein as defined in claim 1 or 2.
20. **(Currently amended)** A method of immunohistologically analyzing ~~the a~~ protein as defined in claim 1 or 2, comprising contacting the protein ~~which uses the~~ with an antibody as defined in claim 19.

21. (Currently amended) ~~An~~ The analyzing method ~~according to~~ of claim 20, further comprising wherein the analyzing method comprises analyzing localization determining the location of a the protein.

22. (Currently amended) ~~An~~ The analysis method ~~according to~~ of claim 20, further comprising wherein the analyzing method comprises analyzing determining the ~~an~~ amount of expression of a the protein.

23. (Currently amended) A method of screening ~~a candidate~~ for a material that promotes or inhibits ~~of a material for promoting or inhibiting~~ binding between a ~~rabconnectin-3 binding protein which is the~~ protein as defined in claim 1 or 2 or a ~~heterogeneous~~ heterogeneous homologous protein thereof, and ~~a rabconnectin-3~~ rabconnectin-3, comprising the steps of:
reacting contacting the a protein as defined in claim 1 or 2 or a heterogeneous homologous protein thereof ~~rabconnectin-3 binding protein with the~~ rabconnectin-3 in the presence and absence of ~~the candidate material~~ materials, and
selecting ~~the a candidate~~ material which increases or decreases the binding between the protein and rabconnectin-3.

24. (Currently amended) A method of screening ~~a candidate~~ for a material that promotes or inhibits ~~of a material for promoting or inhibiting~~ binding between a ~~Rab GDP/GTP exchange protein binding protein which is the~~ protein as defined in claim 1 or 2 or a ~~heterogeneous~~ heterogeneous homologous protein thereof, and a Rab 3 GDP/GTP exchange protein, comprising the steps of:
reacting contacting the a protein as defined in claim 1 or 2 or a heterogeneous homologous protein thereof ~~Rab3 GDP/GTP exchange protein binding protein with the~~ Rab3 GDP/GTP exchange protein in the presence and absence of ~~the candidate material~~ materials, and
selecting ~~the a candidate~~ material which increases or decreases the binding between the protein and Rab3 GDP/GTP exchange protein.

25. (New) A polynucleotide that encodes a protein as defined in claim 2.

26. (New) A recombinant vector comprising a polynucleotide as defined in claim 25.
27. (New) A transformant obtained by transforming a host with a polynucleotide as defined in claim 25.
28. (New) A method of producing a protein having an activity of binding rabconnectin-3 and a GDP/GTP exchange protein, comprising:
culturing a transformant as defined in claim 27 in a culture; and
collecting, from the culture, a protein having an activity of binding rabconnectin-3 and the GDP/GTP exchange protein.
29. (New) A method of analyzing a first polynucleotide as defined in claim 25, comprising hybridizing a probe or a primer with the first polynucleotide, wherein the probe or primer includes a second polynucleotide having at least 15 nucleotides complementary to the first polynucleotide.
30. (New) The analyzing method of claim 11, wherein the first polynucleotide is present in a tissue or a cell.
31. (New) A method comprising amplifying an mRNA in a tissue or a cell by an RT-PCR method with a primer that includes a polynucleotide having at least 15 nucleotides complementary to a polynucleotide as defined in claim 25.